

# Alamitos Bay/Los Cerritos Channel Watershed Management Area

## Watershed Management Program

**Submitted to:**

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## List of Abbreviations

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AB/LCC	Alamitos Bay/Los Cerritos Channel
BPA	Basin Plan Amendment
BMP	Best Management Practice
CIMP	Coordinated Integrated Monitoring Program
CPS	Connector Pipe Screen
EPA	Environmental Protection Agency
EWMP	Enhanced Watershed Management Program
GIS	Geographic Information System
HRU	Hydrologic Response Unit
IC/ID	Illicit Connections and Illicit Discharges
LACFCD	Los Angeles County Flood Control District
LARWCQB	Los Angeles Regional Water Quality Control Board
LID	Low Impact Development
LLCWG	Los Cerritos Channel Watershed Group
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
MRP	Monitoring and Reporting Program
NPDES	National Pollutant Discharge Elimination System
PCBs	Polychlorinated Biphenyls
PIPP	Public Information and Participation Program
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
TMDL	Total Maximum Daily Load
USEPA	United State Environmental Protection Agency
WLA	Waste Load Allocation
WMMS	Watershed Management Modeling System
WQDS	Water Quality Design Storm

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# **Section 1. Introduction**

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## **1.1 BACKGROUND**

The Alamitos Bay/Los Cerritos Channel (AB/LCC) Watershed Management Program (WMP) is a collaborative effort between the County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD). The geographic scope of this WMP is focused on the 95 acre County Island located within the 37.5 square-mile AB/LCC Watershed Management Area (WMA). As shown in Figure 1, the County and the LACFCD, collectively the Alamitos Bay/Los Cerritos Channel Group (AB/LCC Group), make up a very small portion of the overall Watershed Management Area (WMA).

This WMP is being submitted to meet the requirements outlined in section VI.C of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. R4-2012-0178 (Permit). The Permit was adopted on November 8, 2012 and became effective December 28, 2012.

Section VI.C.1.f of the Permit requires that the WMP shall:

- Be consistent with Part VI.C.5-C.8 of the Permit (see below),
- Prioritize water quality issues resulting from storm water and non-storm water discharges from the MS4 to receiving waters within each WMA,
- Identify and implement strategies, control measures, and BMPs to achieve the outcomes specified in Part VI.C.1.d of the Permit,
- Execute an integrated monitoring program and assessment program pursuant to Attachment E, Part IV of the Permit to determine progress towards achieving applicable limitations and/or action levels in Attachment G of the Permit, (See Coordinated Integrated Monitoring Program (CIMP) for the AB/LCC Group)
- Modify strategies, control measures, and Best Management Practices (BMPs) as necessary based on analysis of monitoring data collected pursuant to the Monitoring and Reporting Plan to ensure that applicable water quality-based effluent limitations and receiving water limitations and other milestones set forth in the WMP are achieved in the required timeframes,
- Provide appropriate opportunity for meaningful stakeholder input, including but not limited to, a permit-wide WMP technical advisory committee (TAC) that will advise and participate in the development of the WMPs and enhanced WMPs from month 6 through the date of program approval.

Part VI.C.5-C.8 of the Permit requires the WMP contain:

- Identification of Water Quality Priorities
- Selection of Watershed Control Measures including
  - Minimum control measures
  - Non-storm water discharge measures
  - TMDL Control measures
  - Identification of specify structural and non-structural BMPs
  - Reasonable assurance analysis

- Compliance schedules
- Integrated watershed monitoring and assessment (See CIMP for the AB/LCC Group)
- Adaptive management process

This WMP utilizes planned efforts in the AB/LCC WMA and identifies potential efforts to meet the objectives of the Permit.

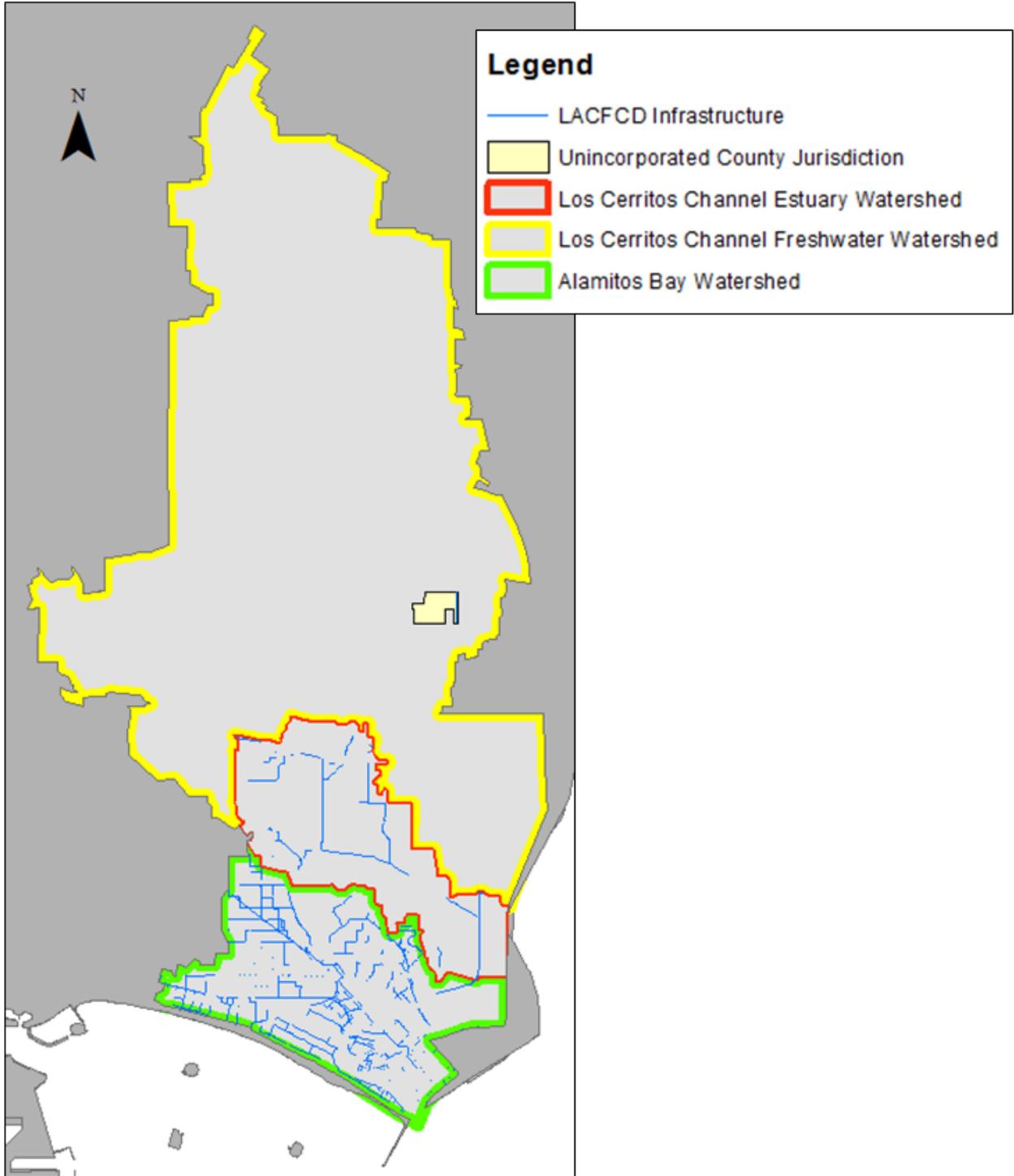
## **1.2 AB/LCC WATERSHED MANAGEMENT AREA**

The AB/LCC WMA is located in southern Los Angeles County and has a drainage area of approximately 37.5 square miles. The AB/LCC WMA encompasses the Los Cerritos Channel freshwater watershed, the Los Cerritos Channel estuary watershed and the Alamitos Bay watershed. It is important to note that the AB/LCC Group has very limited jurisdiction in the overall WMA.

Within the AB/LCC WMA, the County has jurisdiction of a 95 acres County Island. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within the AB/LCC WMA. Further description of the LACFCD can be found in Attachment A. This WMP's geographical scope includes the County Island, the LACFCD infrastructure within that island as well as the LACFCD infrastructure within the Los Cerritos Channel estuary and Alamitos Bay watersheds. These watersheds and the areas covered in this WMP are shown in Figure 1.

The LACFCD's drainage infrastructure serves as a conveyance for waters within the watershed and the LACFCD has no jurisdiction over the land uses within the watershed that generate the pollutants of concern. Further description of the LACFCD and its functions is provided in Appendix A.

A detailed description of the Los Cerritos Channel freshwater watershed, the Los Cerritos Channel estuary watershed and the Alamitos Bay watershed can be found in the AB/LCC Group's CIMP.



**Figure 1: Three Subwatersheds with Alamos Bay/LCC Group Limits**

### 1.3 COUNTY ISLAND

Within the AB/LCC WMA, the County Island is known as the “North Long Beach Island”. The County Island is landlocked by the City of Long Beach (Figure 2). The County Island is 95 acres (0.15 square miles) and is predominantly High-Density Single Family Residential Land Use.



**Figure 2: Unincorporated County Island**

Within the County Island, is the LACFCD maintained Palo Verde Drain. The Palo Verde Drain is an open channel, rectangular storm drain which discharges into the Los Cerritos Channel.

### 1.4 WMP GEOGRAPHIC SCOPE

This WMP is focused on areas in which the County has jurisdiction of the land use. The LACFCD does not have jurisdiction over the land uses which its storm drains and other appurtenant drainage infrastructure serve. Those areas will be addressed through other WMPs/Enhanced WMPs.

## **Section 2. Existing TMDLs Applicable to County Island**

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Within the AB/LCC WMA, there are 2 existing TMDLs which apply to the County Island.

### **2.1 LOS CERRITOS CHANNEL METALS TMDL**

The Total Maximum Daily Load for Metals in Los Cerritos Channel (LCC Metals TMDL) was approved by the United States Environmental Protection Agency (USEPA) on March 17, 2010. The Metals TMDL was developed to address beneficial use impairments due to Copper, Zinc and Lead in the freshwater portion of the Los Cerritos Channel. The freshwater portion of Los Cerritos Channel has the existing beneficial use of Wildlife Habitat (WILD), the potential beneficial uses of Municipal and Domestic Supply (MUN), Water Contact Recreation (REC1) and the intermittent beneficial uses of Warm Freshwater Habitat (WARM), and Non-contact Water Recreation (REC2).

On June 6, 2013, the Los Angeles Regional Water Quality Control Board (LARWQCB) adopted a resolution which includes an Implementation Schedule for the LCC Metals TMDL. The Implementation Schedule states that MS4 permittees “shall provide a written report to the Regional Los Angeles Water Board outlining how they will achieve compliance with the WLAs. The report shall include implementation methods, an implementation schedule, proposed milestones, and any revisions to the TMDL monitoring plan. An Enhanced Watershed Management Program or Watershed Management Program, including the Reasonable Assurance Analysis, submitted in fulfillment of requirements in Order No. R4-2012-0175 may be used by permittees subject to that Order to satisfy the TMDL implementation plan requirements.” The AB/LCC Group is submitting this WMP to satisfy the Implementation Plan requirements of the LCC Metals TMDL.

### **2.2 DOMINGUEZ CHANNEL TOXICS TMDL**

The Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL) was adopted by the LARWQCB on May 5, 2011. The DC Toxics TMDL became effective on March 23, 2012. The goal of the TMDL is to protect and restore fish tissue, water and sediment quality in Dominguez Channel and Greater Los Angeles and Long Beach Harbor waters by remediating contaminated sediment and controlling the sediment loading and accumulation of contaminated sediment in the Harbors.

The County and the LACFCD are both listed as responsible parties for the Greater Harbors waterbody. An Implementation Plan is not required for parties tributary to the Greater Harbors, however this WMP will help improve the quality of water discharged to the Greater Harbors.

As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater Harbors. Accordingly, no inference should be drawn from the submission of this WMP or from any action or implementation taken pursuant to it that the County or the LACFCD is obligated to implement the DC Toxics TMDL, including this WMP or any of the DC Toxics TMDL’s other

obligations or plans, or that the County or the LACFCD have waived any rights under the Amended Consent Decree.

### 2.3 BENEFICIAL USES

The County Island is tributary to the freshwater portion of the Los Cerritos Channel, which has beneficial uses identified in Table 1.

**Table 1: Beneficial Uses in AB/LCC WMA**

Water Body	Beneficial Uses	
Los Cerritos Channel Freshwater Portion	Existing	Wildlife Habitat (WILD)
	Potential	Municipal and Domestic Supply (MUN) Water Contact Recreation (REC1)
	Intermittent	Warm Freshwater Habitat (WARM) Non-contact Water Recreation (REC2)

## **Section 3. Water Quality Priorities**

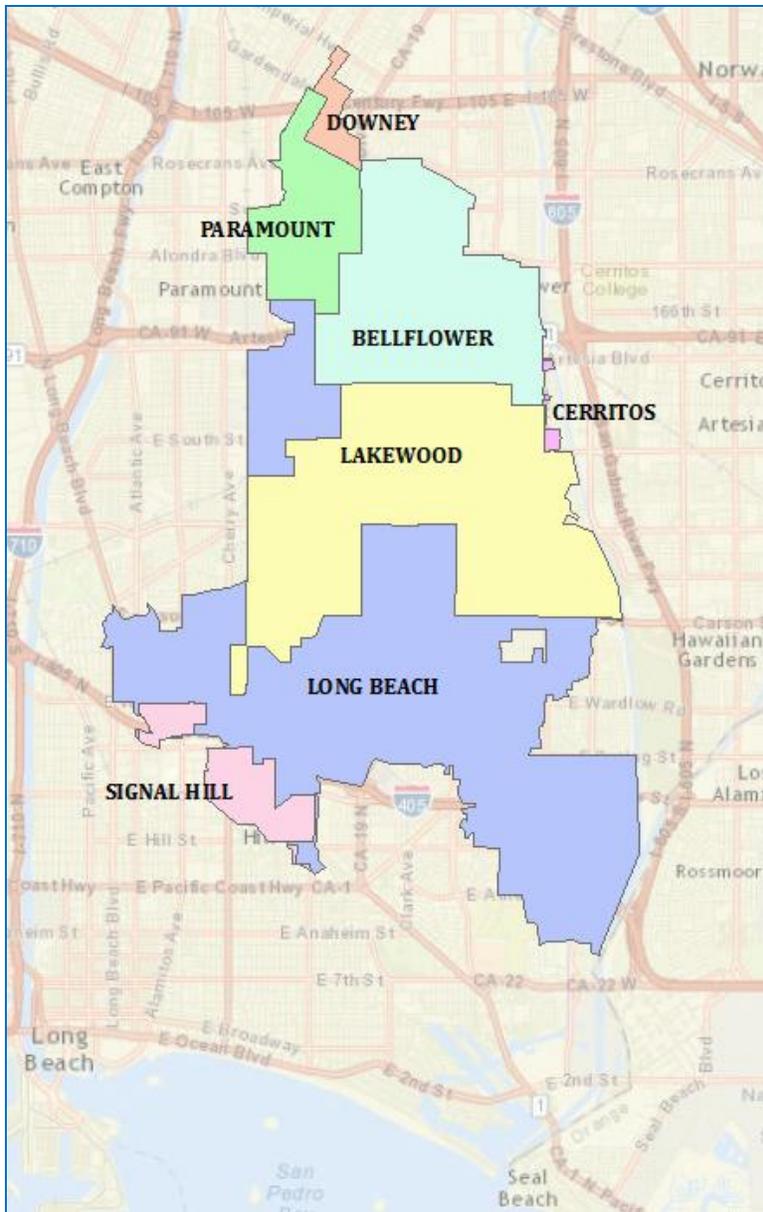
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### **3.1 OBJECTIVE**

Per Section VI.C.5 of the Permit, three categories of pollutants are identified to aid in the evaluation of existing water quality conditions. These classifications consist of:

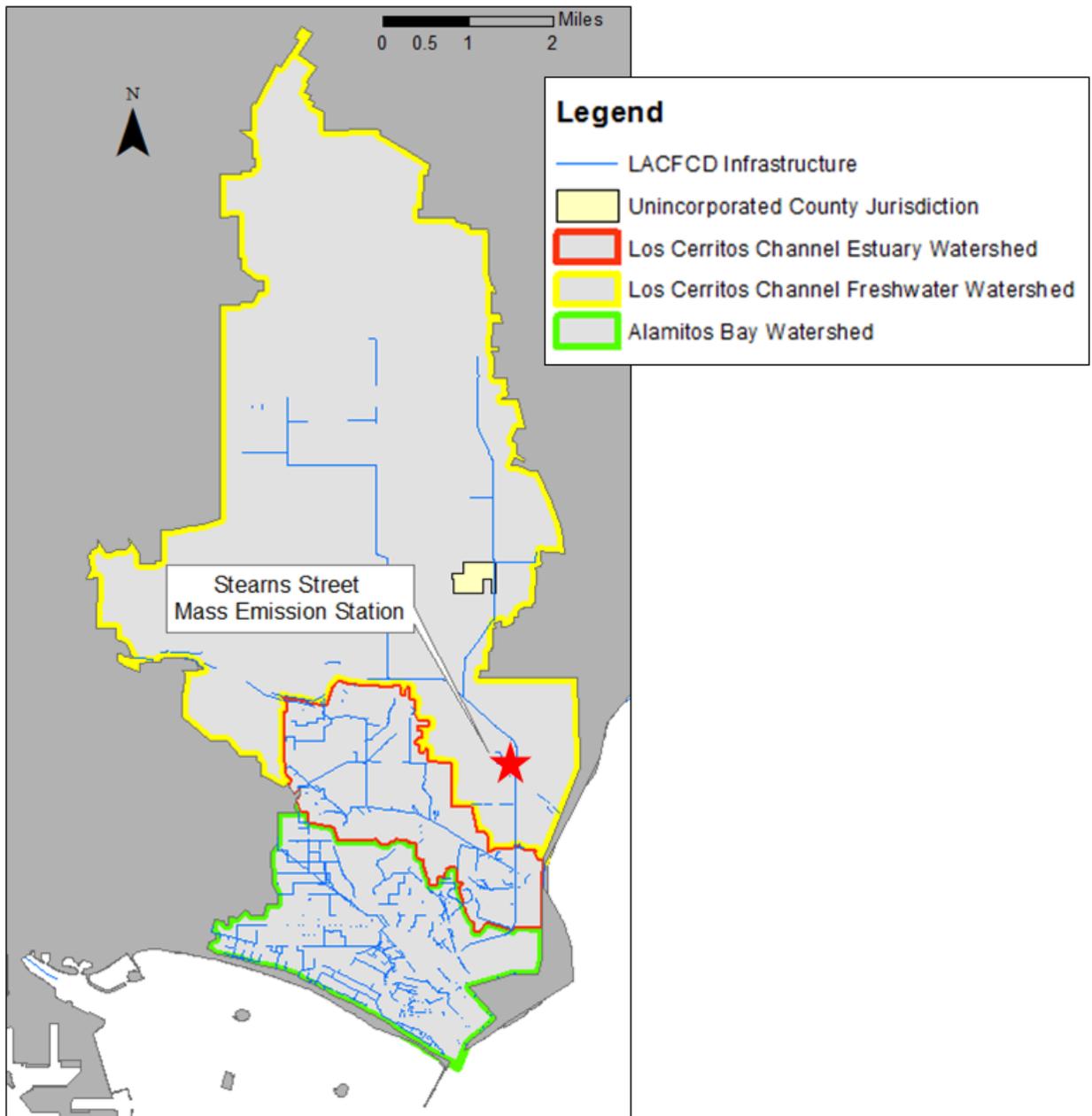
- Category 1 (Highest Priority): Water body-pollutant combinations for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E and Attachments L through R of this Order.
- Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.
- Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance"

The AB/LCC Group is coordinating portions of its monitoring efforts, where feasible with the Los Cerritos Channel Watershed Group (LCCWG). The LCCWG consists of the cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill. Additionally, the LCCWG contains the LACFCD's infrastructure within these cities' jurisdiction. See Figure 3 for the geographical boundaries of the LCCWG.



**Figure 3: Los Cerritos Channel Watershed Group (LCCWG)**

For consistency with the LCCWG, the AB/LCC Group has also identified Low Priority Pollutants. These pollutants fall below the requirements of Category 3, however there has been at least one exceedance of these pollutants within the past 10 years. Consistent with the requirements of the Permit, existing TMDLs and the 303(d) list were used to determine Category 1 and 2 pollutants. Historic monitoring data collected from the Stearns Street Station (Figure 4) was used to determine Category 3 and low priority pollutants. Table 2 lists the pollutants of concern for the freshwater portion of the Los Cerritos Channel.



**Figure 4: Stearns Street Mass Emission Station Location**

### **3.2 STEARNS STREET MASS EMISSION SITE**

The AB/LCC Group has completed a detailed review of monitoring data from the Stearns Street Mass Emission Stations. The City of Long Beach has maintained this mass emission station since 2000. Upon implementation of the LCCWG and the AB/LCC Group’s CIMPs, the City of Long Beach will coordinate with other agencies for the operation and maintenance of the Stearns Street Site. Figure 4 shows the location of the Stearns Street station within the Los Cerritos Channel Watershed. The County Island’s along with other Permittees’ discharge is comingled at this location. Appendix B summarizes the subject data from the past 10 years.

### 3.3 CATEGORY 1 (HIGHEST PRIORITY)

For the County Island, the highest priority pollutants are identified in the Los Cerritos Channel Total Maximum Daily Loads for Metals (LCC Metals TMDL) and the Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL). A complete list can be found in Table 3.

### 3.4 CATEGORY 2 (HIGH PRIORITY)

The high priority pollutants are those identified on the 303(d) list for Los Cerritos Channel. Note that the Unincorporated County Island is tributary to the Los Cerritos Channel via the Palo Verde Drain. Category 2 pollutants are identified in Table 2. Copper, Lead and Zinc have been promulgated and are considered Category 1 pollutants per their listing in the LCC Metals TMDL.

**Table 2: Category 2: High Priority Pollutants- Freshwater Portion of Los Cerritos Channel**

Water Body	Category 2 (High Priority)
Los Cerritos Channel	Ammonia Bis(2ethylhexyl) phthalate (DEHP) Chlordane (Sediment) Coliform Bacteria Copper* Lead* Trash Zinc*

\* Indicates that a TMDL has been promulgated for this pollutant.

### 3.5 CATEGORY 3 (MEDIUM PRIORITY)

A thorough analysis was conducted on data from 2003 to 2013 from the Stearns Street Mass Emission Station. The Permit defines Category 3 pollutants as those “for which there are insufficient data to indicate water quality impairment in the receiving water according to the State’s Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance.” The pollutants that meet the criteria for Category 3 are methylene blue active substances (MBAS) and enterococcus. For a detailed analysis see Appendix B

### 3.6 LOW PRIORITY POLLUTANTS

Low Priority pollutants of concern for the freshwater portion of the Los Cerritos Channel are identified as those that fall below the requirements of Category 3, however there has been at least one exceedance of these pollutants within the past 10 years. In review of the data from the Stearns Street Site, Cadmium, Chlorpyrifos, Chromium and Dissolved Silver meet this criteria for wet weather and Diazinon meets this criteria for wet and dry weather.

### 3.7 SUMMARY

In summary, Table 3 lists all pollutant categories applicable to the County Island.

**Table 3: Water Quality Priorities for the Freshwater Portion of the Los Cerritos Channel**

Waterbody	Category 1 (Highest Priority)		Category 2 (High Priority) Pollutants	Category 3 (Medium Priority) Pollutants	Low Priority Pollutants
	Pollutant	TMDL			
Los Cerritos Channel	Copper (wet and dry)	LCC Metals	Ammonia	MBAS	Cadmium (wet)
	Lead	LCC Metals/DC Toxics	Bis(2ethylhexyl) phthalate (DEHP)	Enterococcus	Chlorpyrifos (wet)
	Zinc	LCC Metals/DC Toxics	Chlordane (Sediment)		Chromium (wet)
	DDT (fish tissue)	DC Toxics	Coliform Bacteria		Diazinon (wet and dry)
	PCBs (fish tissue)	DC Toxics	Trash		Dissolved Silver (wet)
	Chlordane (fish tissue)	DC Toxics	pH		
	PAHs (sediment)	DC Toxics			
	Toxicity (sediment)	DC Toxics			

## **Section 4. Watershed Control Measures**

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### **4.1 OBJECTIVE**

Per Section VI.C.5 of the Permit, permittees shall provide documentation that they have the necessary legal authority to implement the Watershed Control Measures identified in the plan, or that other legal authority exists to compel implementation of the Watershed Control Measures. The legal authority for the County and LACFCD to implement Watershed Control Measures can be found in Appendix C and D respectively.

Additionally, Section VI.5.b.i of the Permit requires Permittees to identify strategies, control measures, and to implement BMPs through their individual storm water management programs, and collectively on a watershed scale, with the goal of creating an efficient program to focus individual and collective resources on watershed priorities. The objectives of the Watershed Control Measures include:

- (1) Prevent or eliminate non-storm water discharges to the MS4 that are a source of pollutants from the MS4 to receiving waters.
- (2) Implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations pursuant to corresponding compliance schedules.
- (3) Ensure that discharges from the MS4 do not cause or contribute to exceedances of receiving water limitations

### **4.2 CONTROL MEASURES**

The AB/LCC Group has identified numerous control measures, or BMPs for the County Island. Due to the limited area of the County Island there is little room for large-scale BMPs although the AB/LCC Group will investigate opportunities to collaborate with other permittees. Potential non-structural BMPs applicable to the County Island include enhanced street sweeping, and increased catch basin cleanouts. Potential structural BMPs would be those that require a small footprint such as pervious catch basins and full capture devices. A detailed evaluation of potential BMPs for the County Island can be found in the Section 5 of this WMP.

### **4.3 MINIMUM CONTROL MEASURES**

Section VI.D.4 of the Permit provides requirements for minimum control measures for the LACFCD and Section VI.D.5-10 provides requirements for each permittee.

#### **4.3.1 MCM Requirements for the LACFCD**

In general, the requirements for the LACFCD involve:

- Implementing a Public Information and Participation Program (PIPP)
- For LACFCD Industrial or Commercial Facilities, comply with section VI.D.6 of the Permit
- Implementing a Public Agency Activities Program
- Continuing to implement an Illicit Connection and Illicit Discharge Program

The LACFCD is currently implementing all of these requirements and will continue to do so for the duration of this Permit.

#### **4.3.2 MCM Requirements for the County of Los Angeles**

In general, the requirements for each permittee involve:

- Implementing a Public Information and Participation Program (PIPP)
- For each Permittee's Industrial or Commercial Facilities, comply with section VI.D.6 of the Permit
- Implementing a Planning and Land Development Program pursuant to Section VI.D.7.b for all New Development and Redevelopment projects subject to the Permit
- Developing a Construction Program subject to Section VI.D.8 of the Permit
- Implementing a Public Agency Activities Program
- Continuing to implement an Illicit Connection and Illicit Discharge Program

The County will implement all of these requirements upon approval of this WMP and will continue to do so for the duration of this Permit.

## **Section 5. Reasonable Assurance Analysis**

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### **5.1 OBJECTIVE**

Per Section VI.C.5.b.iv.5 of the Permit the AB/LCC Group has conducted a Reasonable Assurance Analysis (RAA) for the areas in which it has jurisdiction of the land use. The Permit requires:

- A RAA shall be quantitative and performed using a peer-reviewed model in the public domain.
- The RAA shall commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant loading data, establishment of quality assurance/quality control (QA/QC) criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis.
- Data on performance of watershed control measures needed as model input shall be drawn only from peer-reviewed sources. These data shall be statistically analyzed to determine the best estimate of performance and the confidence limits on that estimate for the pollutants to be evaluated.
- The objective of the RAA shall be to demonstrate the ability of Watershed Management Programs and EWMPs to ensure that Permittees' MS4 discharges achieve applicable water quality based effluent limitations and do not cause or contribute to exceedances of receiving water limitations.

Additionally, the LARWQCB has released "Guidelines for Conducting Reasonable Assurance Analysis in Watershed Management Program, including an Enhanced Watershed Management Program dated March 25, 2014" (RAA Guidelines). The RAA Guidelines were prepared to provide clarification of the permit requirements regarding the RAA, along with recommended criteria for the permittees to prepare an appropriate RAA for LARWQCB approval.

This section documents the analysis and results of the RAA effort to address discharges originating from the County Island. Further, a comprehensive phased approach of BMP implementation is provided. The benefits of BMPs are estimated, in terms of pollutant load reductions, to meet applicable wasteload allocations (WLAs) within the Alamitos Bay/LCC WMA.

### **5.2 WATER QUALITY MODEL/APPROACH**

The AB/LCC Group utilized the Watershed Management Modeling System (WMMS) to model flows and pollutant loading originating from the County Island. WMMS is a LARWQCB approved model developed as a comprehensive decision support system to help select BMPs, to aid watershed planning and development of strategic TMDL compliance plans.

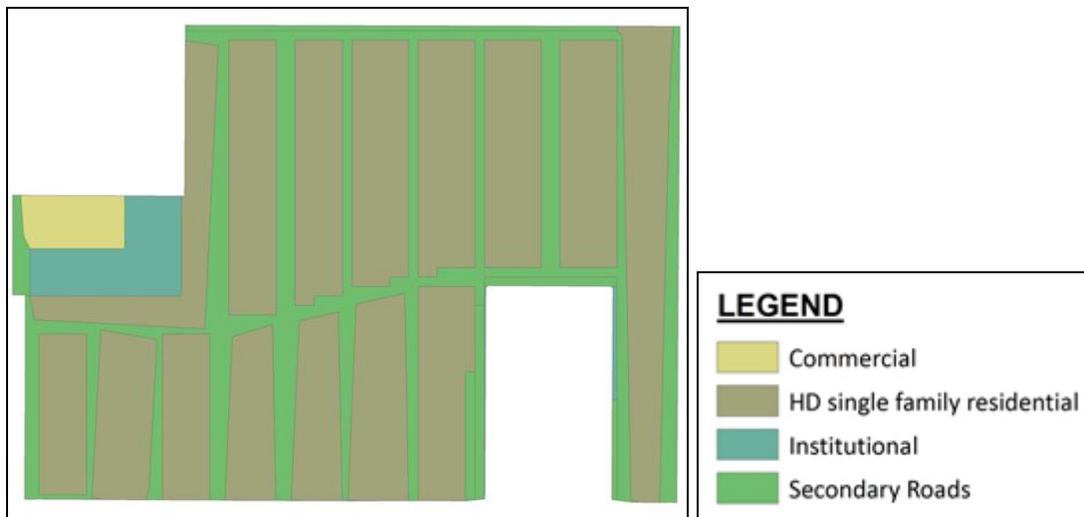
The following approach was used for conducting the RAA:

1. Identify land area for analysis
2. Run WMMS for identified land area for a 10 year period (October 15, 2000 to April 15, 2011)

3. Select Critical Condition storm
4. Determine Critical Condition Daily Pollutant Load
5. Compare Critical Condition Daily Pollutant Loads to WLA limits
6. Identify non-structural and structural BMPs
7. Develop schedule to meet needed percent reductions

### 5.2.1 Land Area Identification

The RAA was conducted for areas in which the AB/LCC Group has jurisdiction over the land use. Accordingly, the 95 acre County Island was modeled. The County Island is located completely within WMMS sub basin 5505. The WMMS model was prepared to isolate only those land uses of the County Island.



**Figure 5: Unincorporated County Island HRU Map**

The Unincorporated County Island Hydrologic Response Units (HRU) and associated Impervious Area distribution is presented in Figure 5 and Table 4.

**Table 4: HRU Breakdown for County Island**

HRU ID	HRU Description	Area (acre)	Impervious Area (acre)	Impervious Area (acre)
1	High Density, Single Family Residential	63.27	42%	26.57
5	Commercial	1.98	96%	1.90
6	Institutional	4.01	75%	3.01
9	Secondary Roads	25.39	44%	11.17

### 5.2.2 WMMS Analysis

WMMS was populated with the most current information available for input into model. At the time of analysis, data from the 2000-2001 to the 2000-2011 Storm Seasons (October 15, 2001 to April 15, 2011) was available. As there is no specific monitoring data for the County Island, WMMS analysis was conducted utilizing built-in parameters. The WMMS output utilizing the built-in parameters included hourly/daily storm volumes as well hourly/daily pollutant loading. The WMMS input files used for analysis are included as a CD-ROM attachment to this document.

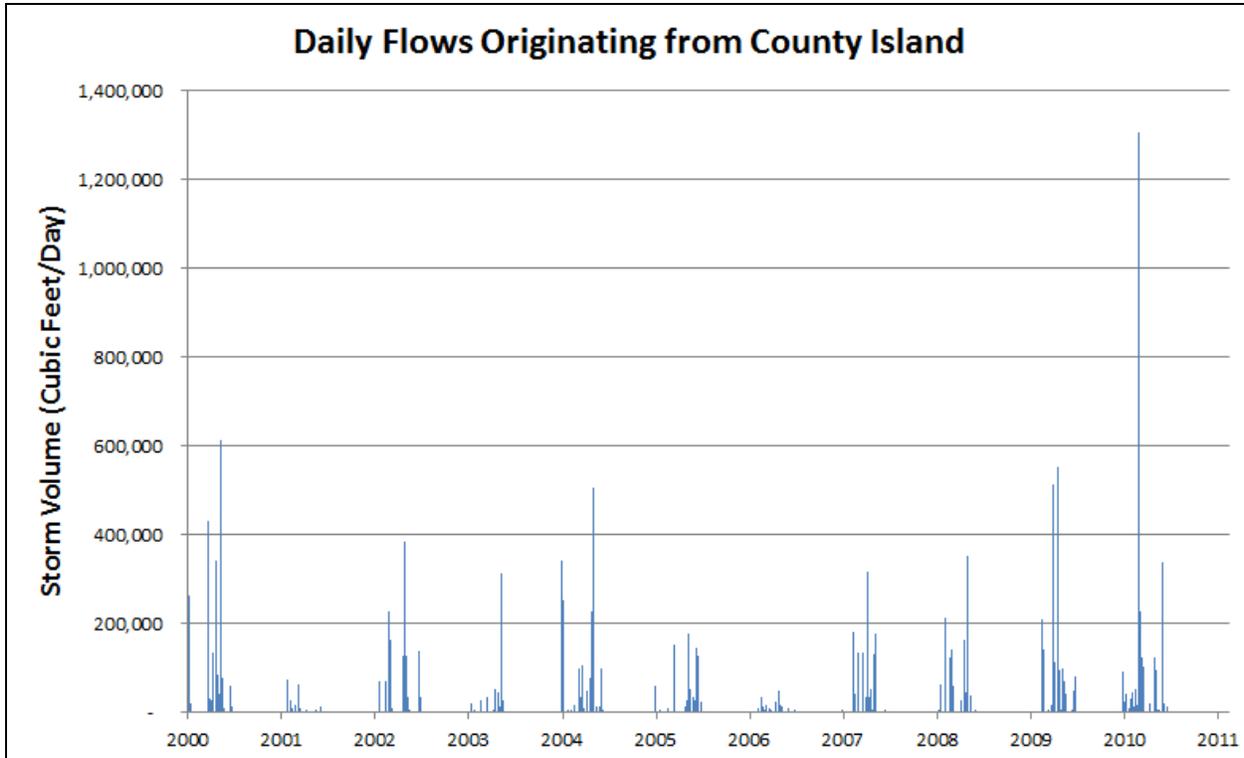


Figure 6: Daily Flows Originating from County Island

### 5.2.3 Critical Storm

Per the RAA Guidelines, the 90<sup>th</sup> percentile flow volume was to be determined. Accordingly all storms occurring between October 15, 2001 to April 15<sup>th</sup> 2011 were ordered based on the magnitude of their storm volume (Figure 7). The 90<sup>th</sup> percentile (Critical Condition) storm was then selected. For the County Island the Critical Condition storm was selected as a storm event which occurred on February 5, 2009.

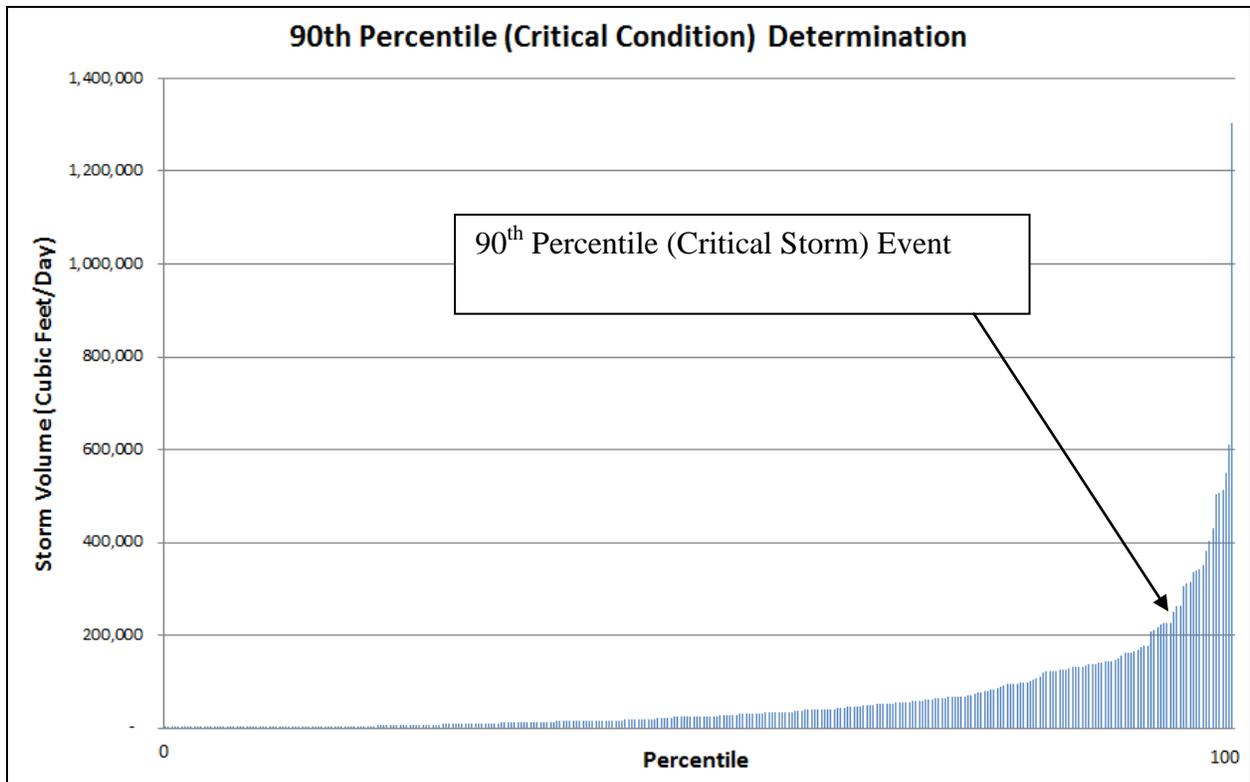


Figure 7: County Island Storms Ordered by Storm Volume

#### 5.2.4 Critical Condition Daily Pollutant Load

The WMMS output was then analyzed and the Critical Condition Daily Pollutant Loading was identified. Daily Loads of Copper, Lead and Zinc were selected:

- Critical Condition Daily Pollutant Copper Loading: 0.08 kg
- Critical Condition Daily Pollutant Lead Loading: 0.078 kg
- Critical Condition Daily Pollutant Zinc Loading: 0.764 kg

For the February 5, 2009 Critical Storm event, the 24-hour volume was determined to be 3.7 acre-feet. Utilizing the BMP Selection module of WMMS, by utilizing stormwater capture BMPs, an approximate 40% reduction in flow would be needed.

### 5.2.4.1 Comparison of Daily Pollutant Loads to WLA Limits

WLA for Copper, Lead and Zinc were identified in the LCC Metals TMDL. Limits in DC Toxics TMDL were also identified however due to the County’s minimal land area tributary to the San Pedro Bay (less than 0.5% of the watershed) reasonable allocations could not be determined. The County Island’s contribution to the San Pedro Bay will be determined based on actual monitoring results from implementation of the AB/LCC Group’s CIMP. The Critical Condition Daily Pollutant Loads from WMMS were then compared to the WLA from the LCC Metals TMDL (Table 5).

**Table 5: Analysis Based on WMMS Results**

Critical Condition Storm	Copper			Lead			Zinc		
	Daily Pollutant Load (kg)	TMDL Allowable Daily Load (kg)	Required Load Reduction (kg)	Daily Pollutant Load (kg)	TMDL Allowable Annual Load (kg)	Required Annual Load Reduction (kg)	Daily Pollutant Load (kg)	TMDL Allowable Annual Load (kg)	Required Annual Load Reduction (kg)
February 5, 2009 (3.7 acre-feet)	0.080	0.022	0.059	0.078	0.123	0.000	0.764	0.211	0.552
% Reduction Required	73%			0%			72%		

Key conclusions from the comparison are:

- Lead is within the required TMDL limits
- Copper requires the highest reduction however based on an analysis of SB 346 will not be the controlling agent (see Section 5.1.5.2 for more information)
- Zinc will be the controlling agent

The RAA is conducted under the assumption that if the controlling agent is reduced to the required WLA, all other metals will also be in compliance.

### 5.2.5 Identification of Potential Non-Structural and Structural BMPs

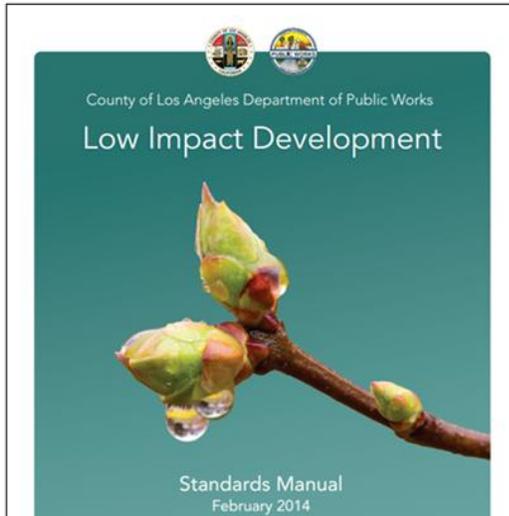
The implementation of non-structural and structural BMPs aims to build a reasonable approach to achieve the required percent reduction of the controlling agent. For the AB/LCC Group the controlling agent is Zinc, which requires a 72% reduction. The AB/LCC Group plans to achieve this reduction through a combination of existing and planned control measures, then, if necessary through additional BMP implementation. It should be noted that the LCC Metals TMDL has a final compliance milestone of September 2026; accordingly the implementation of BMPs will rely heavily on the results of monitoring data provided by the AB/LCC Group’s CIMP.

The sections below list existing and planned BMPs as well as identify potential BMPs for the AB/LCC Group.

#### 5.2.5.1 Low Impact Development (Existing Non-Structural BMP)

The County’s revised Low Impact Development (LID) Ordinance was adopted by the Los Angeles County Board of Supervisors in November 2013. Shortly after the adoption of the Ordinance the County developed a LID Manual .

The LID Manual details two types of projects, Designated Projects and Non-Designated Projects. Designated Projects must infiltrate the entire volume of the Water Quality Design Storm



**Figure 8: County's Low Impact Development Manual**

(WQDS). The WQDS is calculated to be either the 0.75 inch storm or the 85<sup>th</sup> percentile storm, whichever is greater. The WQDS is intended to be design storm which provides the maximum benefit for minimal cost. Designated projects include:

- Sites disturbing 1 acre or more and adding 10,000 sq ft + impervious area
- Industrial parks 10,000 sq ft + impervious area
- Commercial malls 10,000 sq ft + impervious area
- Gas outlets 5,000 sq ft + impervious area
- Restaurants 5,000 sq ft + impervious area
- Parking lots 5,000 sq ft + impervious area or 25 + parking spaces
- Auto facilities 5,000 sq ft + impervious area
- Redevelopment projects adding, replacing, creating 5,000 sq ft + impervious area
- Sites within Significant Ecological Area that impact sensitive species or habitat and create 2,500 sq ft + impervious area

If infiltration is not feasible at the designated projects sites, the LID Manual provides other options for meeting compliance.

The LID Manual also provides requirements for Non-Designated Projects. These requirements are residential projects of 4 units or less that do not fall under the designated project thresholds. The property developer must choose 2 of the following BMPs:

- Porous Pavement
- Cistern/Rain Barrel
- Rain Garden/Planter Box
- Disconnect Impervious Surfaces
- Dry Well
- Landscaping and Landscape Irrigation
- Green Roof

Non-Designated Projects that are residential projects of 5 units or more or a non-residential project must infiltrate the post-development WQDS runoff minus pre-development WQDS runoff. The LID Manual also provides additional compliance requirements for special cases such as single family hillside homes. Further details can be found in the County of Los Angeles' Low Impact Development Manual, dated February 2014.

A majority of the County Island is high-density single family residential. The County's LID Ordinance requires:

- Redevelopment of an existing single family house would be a "non-designated project". LID would be required if there is "addition or alteration" of impervious surfaces.
- If a property owner adds or alters 50% of the impervious surface, then property owner would have to treat the WQDS for the entire site.
- If the property owner adds or alters less than 50% of their site, then the property owner would need LID only for the portion that has been altered
- Redevelopment of a property over 5,000 square would be a "designated project". The property owner would need to infiltrate the volume of runoff created. If they are unable to infiltrate the proper owner would be subject to other mitigation options.

Assuming a limited rate of implementation for the County Island a 1% reduction for Zinc is applied to the Critical Condition Daily Pollutant Load.

#### **5.2.5.2 Senate Bill 346 (Existing Non-Structural BMP)**

In 2010, California Senate Bill SB 346 (SB 346) was enacted to nearly eliminate the use of copper in brake pads. In 2012 TDC Environmental LLC prepared a draft detailed memo (TDC memo) describing the expected percent reduction of copper reductions. The TDC memo identifies 3 possible implementation scenarios:

- One Step Reduction
  - All new vehicles and replacement brake pads are reformulated to contain less than 0.5% copper by January 1, 2021 (first SB 346 compliance deadline).
- Two Step Reduction
  - New vehicle brake pads are reformulated to contain less than 5% copper by January 1, 2021 and less than 0.5% copper by 2025. It would be assumed that all higher copper replacement brakes would be sold within two years of each compliance date.
- Aftermarket Exemption
  - New vehicle brake pads are reformulated to contain less than 5% copper by January 1, 2021 and less than 0.5% copper by 2025. This scenario assumes that higher copper replacement brakes would continue to be sold indefinitely.

Of these cases, Scenario 1 is considered to be the most optimistic. All scenarios were then analyzed to over a fourteen year period. The TDC memo determines the following copper reductions by the year 2032:

- Scenario 1: 61% copper reduction
- Scenario 2: 61% copper reduction
- Scenario 3: 55% copper reduction

### **5.2.5.3 Enhanced Street Sweeping (Planned Non-Structural BMP)**

Street sweeping is well-known non-structural BMP, which removes trash, natural debris and sediment from roads and parking lots. Street sweeping can improve the quality of stormwater runoff by reducing the amount of sediment-bound pollutants that enter catch basins, storm drains and eventually receiving waters.

The County Island is currently swept once a week, mostly by mechanical broom sweepers. The County currently maintains a fleet of 48 street sweepers, 38 of which are mechanical broom sweepers and 10 are regenerative-air sweepers. The AB/LCC Group reviewed numerous studies related to street sweeping including:

- Potential Effects of Structural Controls and Street Sweeping on Stormwater Loads to the Lower Charles River, Massachusetts Study
- City of San Diego, Targeted Aggressive Street Sweeping Pilot Study

These studies note that efficient street sweepers such as assisted-vacuum or regenerative-air sweepers are the best machines when it comes to removing finer grained contaminants bound to sediment. Also the City of San Diego Study found that the assisted vacuum sweeper outperformed the regenerative-air sweeper.

Over the next few years, the County will upgrade a portion of its mechanical broom street sweepers with new high efficiency vacuum street sweepers. Additionally, the County will be conducting a special study to demonstrate the High-Efficiency Vacuum Street Sweepers effect on water quality.

Based on thorough literature review the AB/LCC Group has assumed a 5% reduction of Zinc for its efforts in upgrading its fleet to high efficiency vacuum sweepers. This reduction considers the fact that the County Island has very little slope and it is assumed that sediment is retained in the curb and gutter of the County Island. Accordingly, it is expected that the vacuum sweeper will collect a large amount of sediment that would otherwise be mobilized into the receiving water during a storm event.

### **5.2.5.4 Irrigation Ordinance (Existing/Potential Non-Structural BMP)**

On October 7, 2008 the County of Los Angeles Board of Supervisors adopted Ordinance No. 2008-00052U, which states that:

- “No person shall hose water or wash down any sidewalks, walkways, driveways, parking areas of other paved surfaces, except as is required for the benefit of public health and safety.”
- “No person shall water or cause to be watered any lawn or landscaping to such an extent that runoff into adjoining streets, parking lots or alleys occurs due to incorrectly directed or maintained sprinklers or excessive watering.”
- “No motor vehicle, boat, trailer, or other type of mobile equipment may be washed, except at a commercial carwash or with reclaimed water, unless such vehicle is washed by using a hand-held bucket or a water-hose equipped with an automatic shutoff nozzle.”

Violations of the subject ordinance are subject to fines. This is an existing BMP however depending on budgetary needs the County may allocate additional resources to increase enforcement of this ordinance.

#### **5.2.5.5 Full Capture Devices (Planned Structural BMP)**

In April 2007, after extensive research, testing, and development, the County submitted a Full-Capture Device Technical Report for the connector pipe screen (CPS) device to the LARWCQB. The CPS device was subsequently certified by the LARWCQB as an approved full-capture device on August 1, 2007. The LARWCQB has stated “a full-capture system is any single device or series of devices that traps all particles retained by a 5-millimeter mesh screen (100 percent trash removal) and has a design treatment capacity of not less than the peak-flow rate resulting from a one-year, one-hour, storm in the subdrainage area.” CPS devices are designed to reduce trash but also provide the ancillary benefit of reducing sediment from entering the storm drain system.

The County has successfully implemented CPS units in many of unincorporated County Islands. The County plans to implement CPS devices on the 4 catch basins within its jurisdiction in the AB/LCC WMA by July of 2017. Construction of the CPS devices is contingent upon appropriate field conditions and a thorough design review. CPS devices cannot be installed in areas where they may adversely affect flood protection or in catch basins that are too shallow to house CPS devices.

After a review of the County of Los Angeles’s “Multi-Pollutant TMDL Implementation Plan for the Unincorporated County Area of Ballona Creek” a 2% reduction of Zinc has been assumed.

##### **5.2.5.5.1 Increased Catch Basin Cleanout (Planned Non-Structural BMP)**

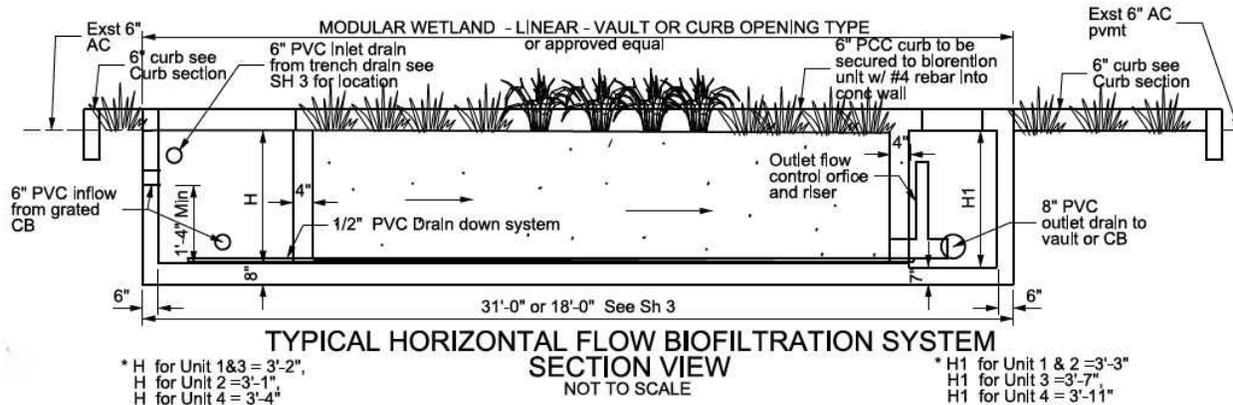
As a function of installing CPS devices the County will increase its cleaning frequency of the catch basins in this County Island. Currently catch basins within this County Island are cleaned on a yearly basis. Once CPS devices are installed the County maintenance will be increased to:

- Monthly inspection during Storm Season (October 1 to April 30)
- Inspection after Major Storms
- Cleanouts will be done as needed following up these inspections
- 1 inspection/cleanout during Dry Season (May 1 to September 30)

Based on this increase frequency a 2% of Zinc reduction has been assumed.

#### **5.2.5.6 Biofiltration System (Potential Structural BMP)**

If needed, the County has identified Biofiltration Systems as potential structural BMPs that would benefit water quality in this County Island. These systems would be installed in road parkways upstream of existing catch basins. The Biofiltration system utilizes screening, hydrodynamic separation, media filtration and bio retention to treat storm water and dry weather flows.



**Figure 9: Typical Biofiltration System**

Biofiltration Systems have demonstrated 79% efficiency in Zinc removal (Modular Wetlands). The County is currently installing these systems as part of water quality projects in other watersheds, and is evaluating their effectiveness.

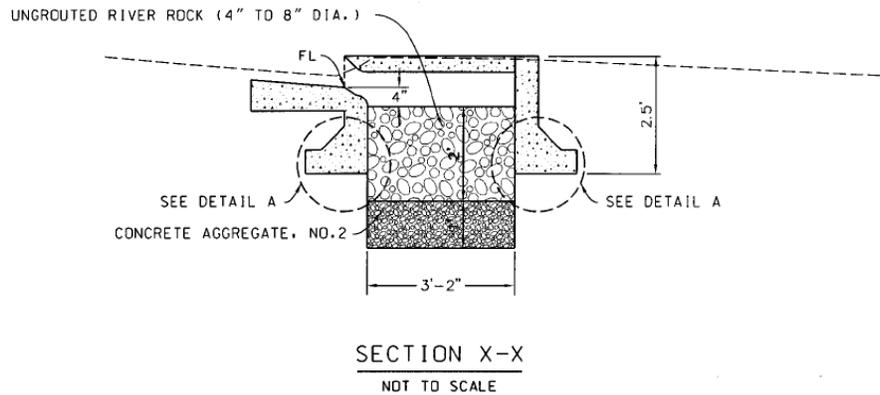


**Figure 10: Potential Biofiltration System Location**

The County has identified the need for appropriate water quality monitoring data in the AB/LCC WMA before determining the number and location of Biofiltration Systems to be installed. This schedule is outlined in Section 5.2.6.

**5.2.5.7 Drainage Filtration Catch Basin (Potential Structural BMP)**

Drainage Filtration Catch Basins may potentially be used to reduce the amount of runoff which leaves the County Island.



**Figure 11: Drainage Filtration Catch Basin Typical Section**

Drainage Filtration Catch Basin Systems have been utilized in numerous locations around the County. Their implementation is dependent on the local soils infiltration capacity as well as available space in the public road parkway. Preliminary analysis of nearby groundwater wells shows adequate infiltration depths may be available. However, before feasibility is determined a site-specific analysis is required on soil infiltration rates.



**Figure 12: Potential Drainage Filtration Catch Basin Locations**

The County has identified the need for appropriate water quality monitoring data before determining the number and location of Drainage Filtration Catch Basins to be installed. A schedule of monitoring and BMP implementation is presented in in Section 5.2.6.

**5.2.5.8 LACFCD Right of Way Infiltration (Potential BMP)**

The AB/LCC Group has identified a potential project along the Palo Verde Drain.



**Figure 13: Potential Right of Way Project along Palo Verde Drain**

The LACFCD's right of way along the Palo Verde Drain is frequently used by pedestrians. A potential greenway project incorporating habitat, water quality and recreation features could be implemented at this location. Implementation of all BMPs including this potential right of way project is contingent upon the results of monitoring from the AB/LCC Group's CIMP as well as budgetary considerations. If results of monitoring determine the need for additional BMPs the LACFCD and the County will collaboratively investigate the feasibility of this project.

### **5.2.6 Schedule to Meet Needed Percent Reductions**

By September 2026, an estimated 72% reduction of Zinc is needed to meet the appropriate WLAs. The following reductions are assumed for existing and planned BMPs:

- Low Impact Development Ordinance 1%
- Enhanced Street Sweeping 5%
- Full Capture Devices 2%
- Increased Catch Basin Cleanout 2%

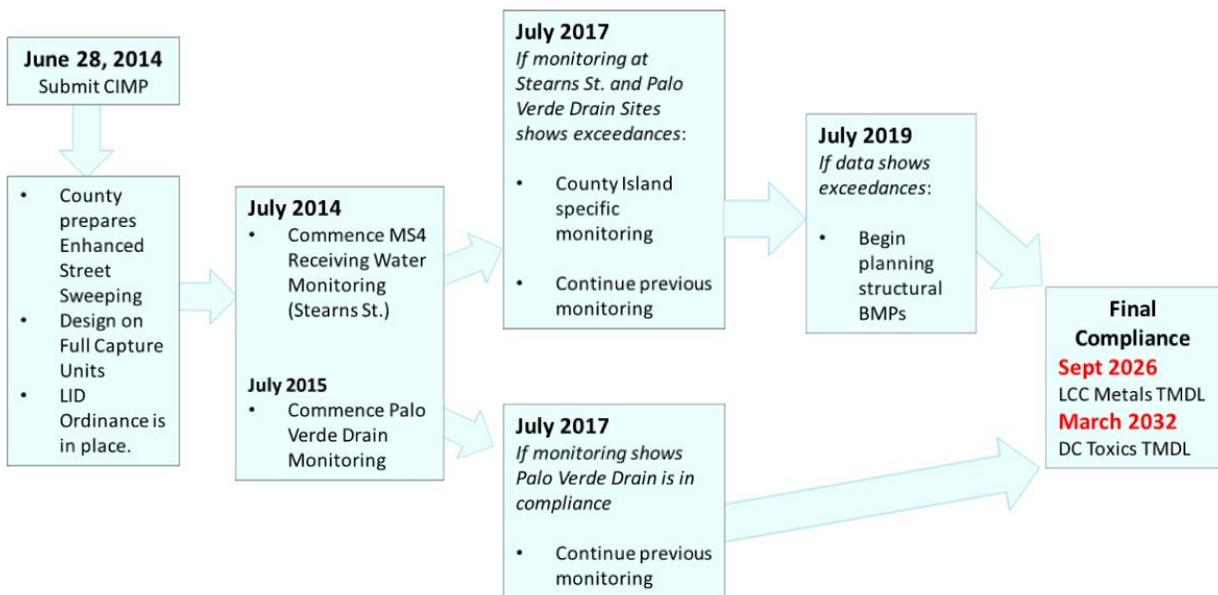
After considering existing and planned BMPs the RAA suggests a remaining 62% reduction of Zinc is required.

Utilizing the 90<sup>th</sup> Percentile Day Volume of 3.7 acre feet, an approximate 40% reduction in flow would need to be mitigated or treated through a flow through BMP system. The AB/LCC Group

will determine the need for a potential structural BMP based on the results of monitoring identified in the AB/LCC Group’s CIMP. The CIMP presents a phased monitoring approach of:

1. Identifying receiving water quality of commingled discharges
2. If commingled discharges lead to exceedances of WLAs, then a County specific monitoring program will be implemented
3. If County specific discharges produce exceedances of WLAs, structural BMPs will be planned and implemented contingent upon available funding.
4. Upon effectiveness monitoring of potential BMPs, monitoring of the County Island would cease.

Figure 14 presents a flow chart outlining the AB/LCC Group’s approach. Implementation of the future monitoring is dependent upon LARWQCB approval of appropriate CIMPs and is subject to change.



**Figure 14: County’s Compliance Approach**

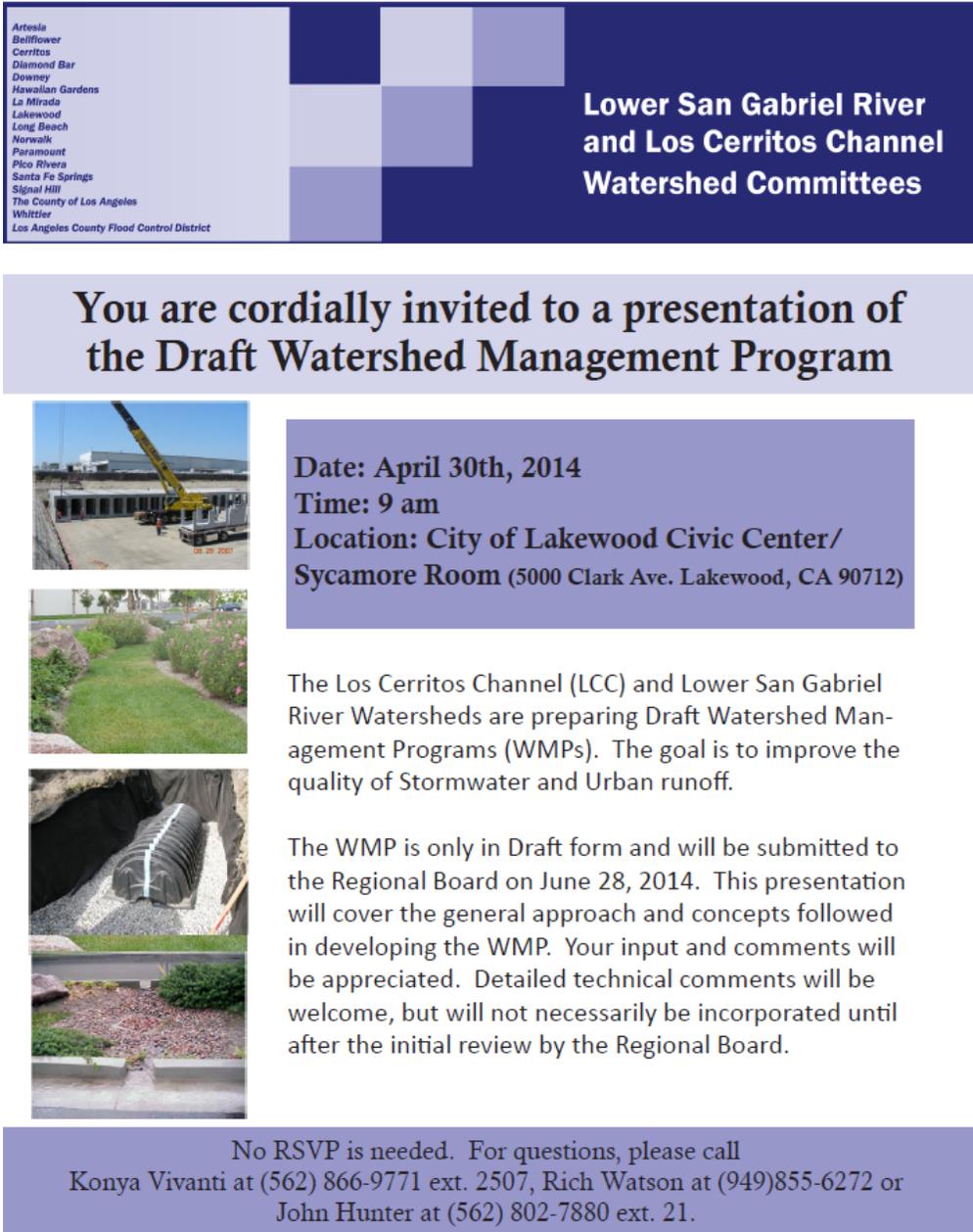
Notable compliance milestones are presented below:

- September 2017: 30% dry weather, 10% wet weather reduction (LCC Metals TMDL)
- September 2020: 70% dry weather, 35% wet weather (LCC Metals TMDL)
- September 2026 Final Compliance (LCC Metals TMDL)
- March 2032 Final Compliance (DC Toxics TMDL)

Through the RAA process the AB/LCC Group has identified potential structural BMPs locations including roadway parkways and the LACFCD’s right of way along the Palo Verde Drain. The implementation of a selected structural BMP is subject to its necessity based on water quality monitoring as well as the availability of adequate funding.

## Section 6. Stakeholder Input

On April 30, 2013 the AB/LCC Group partnered with the Lower San Gabriel River and Los Cerritos Channel Groups to host a stakeholder outreach meeting. The purpose of the meeting was to provide Stakeholders an update on the WMP/CIMP planning process and allow Stakeholders to provide input on the plans. In general, the three watershed groups received positive remarks from the Stakeholders. The notification which was sent to appropriate stakeholders is shown in figure 15.



The graphic is a stakeholder outreach notification. At the top, it features a dark blue header with the text "Lower San Gabriel River and Los Cerritos Channel Watershed Committees" in white. To the left of this header is a list of member communities: Artesia, Bellflower, Cerritos, Diamond Bar, Downey, Hawaiian Gardens, La Mirada, Lakewood, Long Beach, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, The County of Los Angeles, Whittier, and Los Angeles County Flood Control District. Below the header is a light blue banner with the text "You are cordially invited to a presentation of the Draft Watershed Management Program". To the left of the banner are three small images: a construction site with a crane, a garden with flowers, and a stormwater management structure. To the right of the banner is a dark blue box with white text providing the date, time, and location of the presentation. Below this box is a paragraph of text explaining the purpose of the WMP and the draft stage. At the bottom is a dark blue box with white text providing contact information for RSVPs.

Artesia  
Bellflower  
Cerritos  
Diamond Bar  
Downey  
Hawaiian Gardens  
La Mirada  
Lakewood  
Long Beach  
Norwalk  
Paramount  
Pico Rivera  
Santa Fe Springs  
Signal Hill  
The County of Los Angeles  
Whittier  
Los Angeles County Flood Control District

### Lower San Gabriel River and Los Cerritos Channel Watershed Committees

**You are cordially invited to a presentation of the Draft Watershed Management Program**

**Date: April 30th, 2014**  
**Time: 9 am**  
**Location: City of Lakewood Civic Center/  
Sycamore Room (5000 Clark Ave. Lakewood, CA 90712)**

The Los Cerritos Channel (LCC) and Lower San Gabriel River Watersheds are preparing Draft Watershed Management Programs (WMPs). The goal is to improve the quality of Stormwater and Urban runoff.

The WMP is only in Draft form and will be submitted to the Regional Board on June 28, 2014. This presentation will cover the general approach and concepts followed in developing the WMP. Your input and comments will be appreciated. Detailed technical comments will be welcome, but will not necessarily be incorporated until after the initial review by the Regional Board.

No RSVP is needed. For questions, please call Konya Vivanti at (562) 866-9771 ext. 2507, Rich Watson at (949)855-6272 or John Hunter at (562) 802-7880 ext. 21.

Figure 15: Stakeholder Outreach Notification

## **Section 7. Adaptive Management Process**

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### **7.1 OBJECTIVE**

Per Section VI.C.8 of the Permit, the AB/LCC Group will implement an adaptive management process every two years from the approval date of the WMP. The adaptive management process will allow the WMP to become more effective and is based on upon consideration such as:

- Progress toward achieving interim and/or final water-quality based effluent limitations and/or receiving water limitations, according to established compliance schedules
- Progress towards achieving improved water quality in MS4 discharges and achieving receiving water limitations through implementation of the watershed control measures based on an evaluation of outfall-based monitoring data and receiving water monitoring data
- Achievement of interim milestones
- Re-evaluation of the water quality priorities based on more recent water quality data
- Availability of new information from other sources
- Recommendations from the LARWQCB
- Recommendations made during the public participation process for the WMP

A key component of adaptive management is the results from the AB/LCC Group's CIMP. This process will be implemented every two years and any modifications to the WMP will be reported in the permittees' Annual Report.

## **Section 8. Reporting**

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### **8.1 ANNUAL MONITORING REPORT**

Monitoring results for the AB/LCC Group's CIMP will be reported semi-annually to the LARWCB. On December 15<sup>th</sup> of each year, an annual report will be submitted to the LARWCQB summarizing the monitoring through June 30<sup>th</sup>. Details of the Annual Monitoring Report can be found the AB/LCC Group's CIMP.

## Section 9. References

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Los Angeles Regional Water Quality Control Board, “Final Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (posted December 5, 2012)”. Final Order R4-2012-0175, [http://www.waterboards.ca.gov/losangeles/water\\_issues/programs/stormwater/municipal/index.shtml](http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml) (November 2013)

State of California Water Resources Control Board. “2010 Integrated Report (Clean Water Act Section 303(d) List” April 2010, [http://www.waterboards.ca.gov/water\\_issues/programs/tmdl/integrated2010.shtml](http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml). (January 2014)

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters”. Resolution No. R11-008, Effective Date: March 23, 2012, [http://www.waterboards.ca.gov/losangeles/board\\_decisions/basin\\_plan\\_amendments/technical\\_documents/bpa\\_66\\_R11-008\\_td.shtml](http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_66_R11-008_td.shtml) (June 2013)

Anchor QEA, L.P., “Coordinated Compliance, Monitoring, and Reporting Plan Incorporating Quality Assurance Project Plan Components” June, 2013, [http://www.waterboards.ca.gov/losangeles/board\\_decisions/basin\\_plan\\_amendments/technical\\_documents/66\\_New/09232013/1aDraftCCMRP62413.pdf](http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/66_New/09232013/1aDraftCCMRP62413.pdf) (January 2014)

United States Environmental Protection Agency, “Los Cerritos Channel Total Maximum Daily Loads for Metals”. March 2010

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Organochlorine (OC) Pesticides, Polychlorinated Biphenyls (PCBs), Sediment Toxicity, Polycyclic Aromatic Hydrocarbons (PAHs), and Metals for Colorado Lagoon”. Resolution No. R09-05, Adopted Date: October 1, 2009, [http://www.waterboards.ca.gov/losangeles/board\\_decisions/basin\\_plan\\_amendments/technical\\_documents/bpa\\_65\\_R09-005\\_td.shtml](http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_65_R09-005_td.shtml) (January 2014)

Kinnetic Laboratories, Inc., “Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) Colorado Lagoon Organochlorine Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL” December, 2012

Los Cerritos Channel Watershed Group, “Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group” June 2014

County of Los Angeles, “Multi-Pollutant TMDL Implementation Plan for the Unincorporated County Area of Ballona Creek” October 2010

County of Los Angeles Department of Public Works, “Low Impact Development Standards Manual” February 2014,

<http://dpw.lacounty.gov/idd/lib/fp/Hydrology/Low%20Impact%20Development%20Standards%20Manual.pdf> (May 2014)

# APPENIDX A. LACFCD Background Information

In 1915, the Los Angeles County Flood Control Act established the LACFCD and empowered it to manage flood risk and conserve stormwater for groundwater recharge. In coordination with the United States Army Corps of Engineers the LACFCD developed and constructed a comprehensive system that provides for the regulation and control of flood waters through the use of reservoirs and flood channels. The system also controls debris, collects surface storm water from streets, and replenishes groundwater with storm water and imported and recycled waters. The LACFCD covers the 2,753 square-mile portion of Los Angeles County south of the east-west projection of Avenue S, excluding Catalina Island. It is a special district governed by the County of Los Angeles Board of Supervisors, and its functions are carried out by the Los Angeles County Department of Public Works. The LACFCD service area is shown in **Figure A-1**.

Unlike cities and counties, the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within its service area. The LACFCD has no planning, zoning, development permitting, or other land use authority within its service area. The permittees that have such land use authority are responsible under the Permit for inspecting and controlling pollutants from industrial and commercial facilities, development projects, and development construction sites. (Permit, Part II.E, p. 17.)

The MS4 Permit language clarifies the unique role of the LACFCD in storm water management programs: “[g]iven the LACFCD’s limited land use authority, it is appropriate for the LACFCD to have a separate and uniquely-tailored storm water management program. Accordingly, the storm water management program minimum control measures imposed on the LACFCD in Part VI.D of this Order differ in some ways from the minimum control measures imposed on other Permittees. Namely, aside from its own properties and facilities, the LACFCD is not subject to the Industrial/Commercial Facilities Program, the Planning and Land Development Program, and the Development Construction Program. However, as a discharger of storm and non-storm water, the LACFCD remains subject to the Public Information and Participation Program and the Illicit Connections and Illicit Discharges Elimination Program. Further, as the owner and operator of certain properties, facilities and infrastructure, the LACFCD remains subject to requirements of a Public Agency Activities Program.” (Permit, Part II.F, p. 18.)

Consistent with the role and responsibilities of the LACFCD under the Permit, the [E]WMPs and CIMPs reflect the opportunities that are available for the LACFCD to collaborate with permittees having land use authority over the subject watershed area. In some instances, the opportunities are minimal, however the LACFCD remains responsible for compliance with certain aspects of the MS4 permit as discussed above.

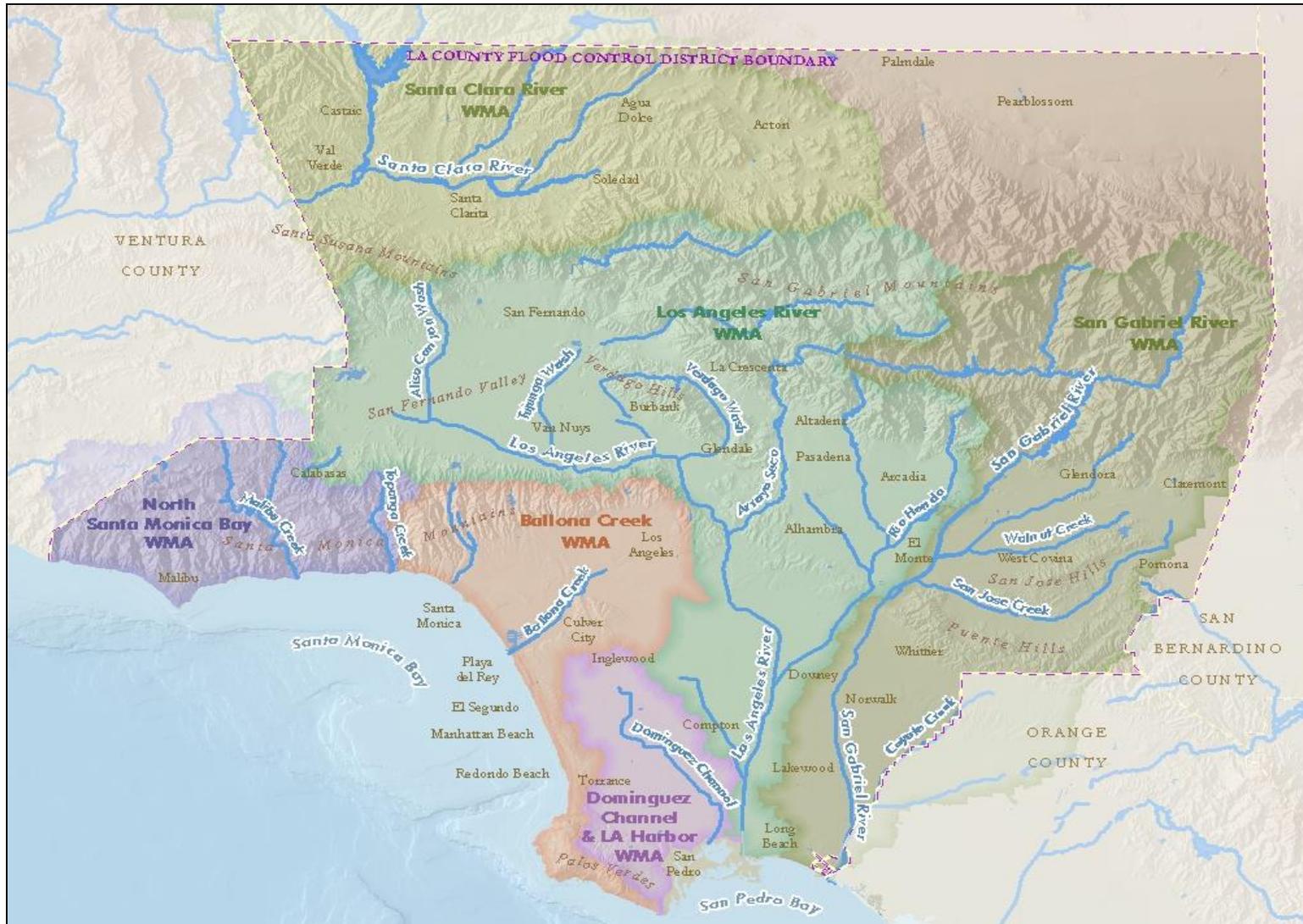
As part of the WMP planning process, LACFCD infrastructure was considered for potential project opportunities. However, because of the LACFCD's limited land use authority discussed above, the responsible jurisdictions with land use jurisdiction over the WMP area will be the lead for the development of any structural controls.

In some instances, in recognition of the increased efficiency of implementing certain programs regionally, the LACFCD has committed to responsibilities above and beyond its obligations under the 2012 Permit. For example, although under the 2012 Permit the Public Information and Participation Program is a responsibility of each Permittee, the LACFCD is committed to implementing certain regional elements of the PIPP on behalf of all Permittees at no cost to the Permittees. These regional elements include:

- Maintaining a countywide hotline (888-CLEAN-LA) and website ([www.888cleanla.com](http://www.888cleanla.com)) for public reporting and general stormwater management information at an estimated annual cost of \$250,000. Each Permittee can utilize this hotline and website for public reporting within its jurisdiction.
- Broadcasting public service announcements and conducting regional advertising campaigns at an estimated annual cost of \$750,000.
- Facilitating the dissemination of public education and activity specific stormwater pollution prevention materials at an estimated annual cost of \$100,000.
- Maintaining a stormwater website at an estimated annual cost of \$10,000.

The LACFCD will implement these elements on behalf of all Permittees starting July 2015 and through the Permit term. With the LACFCD handling these elements regionally, Permittees can better focus on implementing local or watershed-specific programs, including student education and community events, to fully satisfy the PIPP requirements of the 2012 Permit.

Similarly, although water quality monitoring is a responsibility of each Permittee under the 2012 Permit, the LACFCD is committed to implement certain regional elements of the monitoring program. Specifically, the LACFCD will continue to conduct monitoring at the seven existing mass emissions stations required under the previous Permit. The LACFCD will also participate in the Southern California Stormwater Monitoring Coalition's Regional Bioassessment Program on behalf of all Permittees. By taking on these additional responsibilities, the LACFCD wishes to increase the efficiency and effectiveness of these programs.



**Figure A-1 Los Angeles County Flood Control District Service Area**

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## **APPENIDX B. Water Qualities Priorities**

## SUMMARY

Wet weather and dry weather samples between 2003 and 2013 at the Stearns Street Mass Emission Station were compared to applicable numeric limits in the Los Angeles Basin Plan, California Ocean Plan, California Toxics Rule or California Fish and Game. The Permit states that parameters in Table E-2 shall be monitored in the first year of monitoring and if a parameter is not detected at the MDL or if the result is below the lowest applicable water quality objective, it need not be further analyzed. It's important to note that some of the laboratory reporting limits (RLs) were above the limits used for a number of constituents. Those samples were not counted as being above the numeric limits in this analysis.

**TABLE 1 – WET WEATHER SAMPLES ABOVE NUMERIC TARGETS**

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
<b>Aroclors</b>		
Aroclor 1016	0	34
Aroclor 1221	0	34
Aroclor 1232	0	34
Aroclor 1242	0	34
Aroclor 1248	0	34
Aroclor 1254	0	26
Aroclor 1260	0	34
<b>Chlorinated Pesticides</b>		
4,4'-DDT	0	34
Aldrin	0	34
Dieldrin	0	34
Endosulfan I	0	34
Endosulfan II	0	34
Endrin	0	34
gamma-BHC (Lindane)	0	34
Heptachlor	0	34
Heptachlor epoxide	0	34
Total Chlordane <sup>1</sup>	--	34
Toxaphene	0	34
<b>Conventionals</b>		
MBAS	3	34
Nitrate (as N)	0	33
Nitrite (as N)	0	33
Total Ammonia (as N) <sup>1</sup>	--	34
<b>Dissolved Metals (CTR Fresh CMC)*</b>		
Arsenic	0	34
Cadmium	0	34
Copper	31	34
Lead	0	34
Nickel	0	34
Silver	1	34
Zinc	24	34
<b>Microbiology</b>		
Enterococcus	32	32

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Fecal Coliform	31	32
Total Coliform	30	32
<b>Organophosphates (CFG FRESH CMC)</b>		
Chlorpyrifos	2	34
<b>Total Metals</b>		
Aluminum	30	34
Arsenic	0	34
Cadmium	1	34
Chromium	1	34
Nickel	0	34
Selenium	0	34

**TABLE 2 – DRY WEATHER SAMPLES ABOVE NUMERIC TARGETS**

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
<b>Aroclors</b>		
Aroclor 1016	0	20
Aroclor 1221	0	20
Aroclor 1232	0	20
Aroclor 1242	0	20
Aroclor 1248	0	20
Aroclor 1254	0	20
Aroclor 1260	0	20
<b>Chlorinated Pesticides</b>		
4,4'-DDT	0	20
Aldrin	0	20
Dieldrin	0	20
Endosulfan I	0	20
Endosulfan II	0	20
Endrin	0	20
gamma-BHC (Lindane)	0	20
Heptachlor	0	20
Heptachlor epoxide	0	20
Total Chlordane <sup>1</sup>	--	20
Toxaphene	0	20
<b>Conventionals</b>		
MBAS	1	20
Nitrate (as N)	0	20
Nitrite (as N)	0	20
Total Ammonia (as N) <sup>1</sup>	--	20
<b>Dissolved Metals (CTR Fresh CMC)</b>		
Arsenic	0	20
Cadmium	0	20
Copper	8	20
Lead	0	20

<b>CONSTITUENTS</b>	<b>NO. OF SAMPLES ABOVE ML</b>	<b>TOTAL NO. OF SAMPLES</b>
Nickel	0	20
Silver	0	20
Zinc	0	20
<b>Microbiology</b>		
Enterococcus	18	20
Fecal Coliform	12	20
Total Coliform	9	20
<b>Organophosphates (CFG FRESH CMC)</b>		
Chlorpyrifos	0	20
Diazinon	2	20
<b>Total Metals</b>		
Aluminum	1	20
Arsenic	0	20
Cadmium	0	20
Chromium	0	20
Nickel	0	20
Selenium	0	20

<sup>1</sup> Refer to the Los Cerritos Channel Watershed Management Group CIMP for analysis of exceedances.

## **APPENIDX C. County of Los Angeles Legal Authority**



COUNTY OF LOS ANGELES  
OFFICE OF THE COUNTY COUNSEL

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JOHN F. KRATTLI  
County Counsel

December 16, 2013

Mr. Samuel Unger, P.E., Executive Officer  
California Regional Water Quality Control Board – Los Angeles Region  
320 West 4th Street, Suite 200  
Los Angeles, CA 90013-2343

Attention: Mr. Ivar Ridgeway

**Re: Certification By Legal Counsel For County of Los Angeles'  
Annual Report**

Dear Mr. Unger:

Pursuant to the requirements of Part VI(A)(2)(b) of Order No. R4-2012-0175 (the "Order"), the Office of the County Counsel of the County of Los Angeles makes the following certification in support of the Annual Report of the County of Los Angeles ("County"):

Certification Pursuant To Order Part VI(A)(2)(b)

*"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order."*

The County has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

Order Part VI(A)(2)(b)(i)

*"Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order"*

Citations Of Applicable Ordinances Or Other Legal Authorities

Although many portions of State law, the Charter of the County of Los Angeles and the Los Angeles County Code are potentially applicable to the implementation and enforcement of these requirements, the primary applicable laws and ordinances are as follows:

Los Angeles County Code, Title 12, Chapter 12.80 STORMWATER AND RUNOFF POLLUTION CONTROL, including:

§12.80.010 - §12.80.360 Definitions

§12.80.370 Short title.

§12.80.380 Purpose and intent.

§12.80.390 Applicability of this chapter.

§12.80.400 Standards, guidelines and criteria.

§12.80.410 Illicit discharges prohibited.

§12.80.420 Installation or use of illicit connections prohibited.

§12.80.430 Removal of illicit connection from the storm drain system.

§12.80.440 Littering and other discharge of polluting or damaging substances prohibited.

§12.80.450 Stormwater and runoff pollution mitigation for construction activity.

§12.80.460 Prohibited discharges from industrial or commercial activity.

§12.80.470 Industrial/commercial facility sources required to obtain a NPDES permit.

§12.80.480 Public facility sources required to obtain a NPDES permit.

§12.80.490 Notification of uncontrolled discharges required.

§12.80.500 Good housekeeping provisions.

§12.80.510 Best management practices for construction activity.

- §12.80.520 Best management practices for industrial and commercial facilities.
- §12.80.530 Installation of structural BMPs.
- §12.80.540 BMPs to be consistent with environmental goals.
- §12.80.550 Enforcement—Director's powers and duties.
- §12.80.560 Identification for inspectors and maintenance personnel.
- §12.80.570 Obstructing access to facilities prohibited.
- §12.80.580 Inspection to ascertain compliance—Access required.
- §12.80.590 Interference with inspector prohibited.
- §12.80.600 Notice to correct violations—Director may take action.
- §12.80.610 Violation a public nuisance.
- §12.80.620 Nuisance abatement—Director to perform work when—Costs.
- §12.80.630 Violation—Penalty.
- §12.80.635 Administrative fines.
- §12.80.640 Penalties not exclusive.
- §12.80.650 Conflicts with other code sections.
- §12.80.660 Severability.
- §12.80.700 Purpose.
- §12.80.710 Applicability.
- §12.80.720 Registration required.
- §12.80.730 Exempt facilities.
- §12.80.740 Certificate of inspection—Issuance by the director.
- §12.80.750 Certificate of inspection—Suspension or revocation.

§12.80.760 Certificate of inspection—Termination.

§12.80.770 Service fees.

§12.80.780 Fee schedule.

§12.80.790 Credit for overlapping inspection programs.

§12.80.800 Annual review of fees.

Los Angeles County Code, Title 12, Chapter 12.84 LOW IMPACT  
DEVELOPMENT STANDARDS, including:

§12.84.410 Purpose.

§12.84.420 Definitions.

§12.84.430 Applicability.

§12.84.440 Low Impact Development Standards.

§12.84.445 Hydromodification Control.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Los Angeles County Code, Title 22 PLANNING AND ZONING, Part 6  
ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

Los Angeles County Code, Title 26 BUILDING CODE, including:

§26.103 Violations And Penalties

§26.104 Organization And Enforcement

§26.105 Appeals Boards

§26.106 Permits

§26.107 Fees

§26.108 Inspections

California Government Code §6502

California Government Code §23004

Relationship Of Applicable Ordinances Or Other Legal Authorities To  
 The Requirements of 40 CFR §122.26(d)(2)(i)(A-F) And The Order

Although, depending upon the particular issue, there may be multiple ways in which particular sections of the County's ordinances and State law relate to the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order, the table below indicates the basic relationship with Part VI(A)(2)(a) of the Order:

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.	§12.80.410 [illicit discharge prohibited]; §12.80.450 [construction] §12.80.460 [industrial and commercial] §12.80.470 and .480 [industrial and commercial NPDES requirements] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections]
ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.	§12.80.410 [illicit discharge prohibited]
iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4.	§12.80.410 [illicit discharge prohibited]; §12.80.420 [illicit connections prohibited]
iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.	§12.80.410 [illicit discharge prohibited]; §12.80.440 [littering and other polluting prohibited]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).</p>	<p>§12.80.490 [notification of uncontrolled discharge]                      §12.80.570 [obstructing access to facilities]                      §12.80.580 [compliance inspection]                      §12.80.610 [violation a nuisance]                      §12.620 [nuisance abatement]                      §12.80.635 [violation penalty]                      §12.80.640 [penalties not exclusive]                      §12.84.440 [LID standards]                      §12.84.445 [hydromodification control]                      §12.84.450 [LID Plan Review]                      §22.60.330 [general prohibitions]                      §22.60.340 [violations]                      §22.60.350 [public nuisance]                      §22.60.360 [infractions]                      §22.60.370 [injunction]                      §22.60.380 [enforcement.]                      §22.60.390 [zoning enforcement order]                      §26.103 [violations and penalties]                      §26.104 [enforcement]                      §26.106 [permits]                      §26.108 [inspections]</p>
<p>vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.</p>	<p>Same as item v., above</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees.	California Government Code §6502 and §23004
viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.	California Government Code §6502 and §23004
ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.	§12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.80.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §22.60.380 [enforcement.] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.</p>	<p>§12.80.450 [construction mitigation]                      §12.80.500 [good housekeeping practices]                      §12.80.510 [construction BMPs]                      §12.80.520 [industrial/commercial BMPs]                      §12.84.440 [LID standards]                      §12.84.450 [LID Plan Review]                      §22.60.330 [general prohibitions]                      §22.60.380 [enforcement.]                      §22.60.390 [zoning enforcement order]                      §26.106 [permits]                      §26.108 [inspections]</p>
<p>xi. Require that structural BMPs are properly operated and maintained.</p>	<p>§12.80.530 [installation of structural BMPs]                      §22.60.380 [enforcement.]                      §22.60.390 [zoning enforcement order]                      §26.106 [permits]                      §26.108 [inspections]</p>
<p>xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.</p>	<p>§12.80.530 [installation of structural BMPs]                      §22.60.380 [enforcement.]                      §22.60.390 [zoning enforcement order]                      §26.106 [permits]                      §26.108 [inspections]</p>

Order Part VI(A)(2)(b)(ii)

*"Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system."*

The local administrative and legal procedures available to mandate compliance with the above ordinances are specified in those ordinances, particularly in:

§12.80.550 Enforcement—Director's powers and duties.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Title 26, §103 Violations And Penalties

Title 26, §104 Organization And Enforcement

Title 26, §105 Appeals Boards

Title 26, §106 Permits

Title 22 PLANNING AND ZONING, Part 6 ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

The County attempts to first resolve each enforcement action administratively. However, the above cited ordinances also provide the County with the authority to pursue such actions in the judicial system as necessary.

Very truly yours,

JOHN F. KRATTLI  
County Counsel

By   
JUDITH A. FRIES  
Principal Deputy County Counsel  
Public Works Division

JAF:jjj

## **APPENIDX D. LACFCD Legal Authority**



COUNTY OF LOS ANGELES  
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JOHN F. KRATTLI  
County Counsel

December 16, 2013

Mr. Samuel Unger, P.E., Executive Officer  
California Regional Water Quality Control Board – Los Angeles Region  
320 West 4th Street, Suite 200  
Los Angeles, CA 90013-2343

Attention: Mr. Ivar Ridgeway

**Re: Certification By Legal Counsel For Los Angeles County Flood  
Control District's Annual Report**

Dear Mr. Unger:

Pursuant to the requirements of Part VI(A)(2)(b) of Order No. R4-2012-0175 (the "Order"), the Office of the County Counsel of the County of Los Angeles makes the following certification in support of the Annual Report of the Los Angeles County Flood Control District ("LACFCD"):

Certification Pursuant To Order Part VI(A)(2)(b)

*"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order."*

LACFCD has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

Order Part VI(A)(2)(b)(i)

*"Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order"*

Citations Of Applicable Ordinances Or Other Legal Authorities

Although many portions of State law, the Charter of the County of Los Angeles, the Los Angeles County Code and LACFCD's Flood Control District Code ("Code") are potentially applicable to the implementation and enforcement of these requirements, the primary applicable laws and ordinances are as follows:

Los Angeles County Code, Title 12, Chapter 12.80 STORMWATER AND RUNOFF POLLUTION CONTROL, including:

§12.80.010 - §12.80.360 Definitions

§12.80.370 Short title.

§12.80.380 Purpose and intent.

§12.80.390 Applicability of this chapter.

§12.80.400 Standards, guidelines and criteria.

§12.80.410 Illicit discharges prohibited.

§12.80.420 Installation or use of illicit connections prohibited.

§12.80.430 Removal of illicit connection from the storm drain system.

§12.80.440 Littering and other discharge of polluting or damaging substances prohibited.

§12.80.450 Stormwater and runoff pollution mitigation for construction activity.

§12.80.460 Prohibited discharges from industrial or commercial activity.

§12.80.470 Industrial/commercial facility sources required to obtain a NPDES permit.

§12.80.480 Public facility sources required to obtain a NPDES permit.

§12.80.490 Notification of uncontrolled discharges required.

§12.80.500 Good housekeeping provisions.

§12.80.510 Best management practices for construction activity.

- §12.80.520 Best management practices for industrial and commercial facilities.
- §12.80.530 Installation of structural BMPs.
- §12.80.540 BMPs to be consistent with environmental goals.
- §12.80.550 Enforcement—Director's powers and duties.
- §12.80.560 Identification for inspectors and maintenance personnel.
- §12.80.570 Obstructing access to facilities prohibited.
- §12.80.580 Inspection to ascertain compliance—Access required.
- §12.80.590 Interference with inspector prohibited.
- §12.80.600 Notice to correct violations—Director may take action.
- §12.80.610 Violation a public nuisance.
- §12.80.620 Nuisance abatement—Director to perform work when—Costs.
- §12.80.630 Violation—Penalty.
- §12.80.635 Administrative fines.
- §12.80.640 Penalties not exclusive.
- §12.80.650 Conflicts with other code sections.
- §12.80.660 Severability.
- §12.80.700 Purpose.
- §12.80.710 Applicability.
- §12.80.720 Registration required.
- §12.80.730 Exempt facilities.
- §12.80.740 Certificate of inspection—Issuance by the director.
- §12.80.750 Certificate of inspection—Suspension or revocation.

§12.80.760 Certificate of inspection—Termination.

§12.80.770 Service fees.

§12.80.780 Fee schedule.

§12.80.790 Credit for overlapping inspection programs.

§12.80.800 Annual review of fees.

Los Angeles County Code, Title 12, Chapter 12.84 LOW IMPACT DEVELOPMENT STANDARDS, including:

§12.84.410 Purpose.

§12.84.420 Definitions.

§12.84.430 Applicability.

§12.84.440 Low Impact Development Standards.

§12.84.445 Hydromodification Control.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Los Angeles County Code, Title 22 PLANNING AND ZONING, Part 6 ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

Los Angeles County Code, Title 26 BUILDING CODE, including:

§26.103 Violations And Penalties

§26.104 Organization And Enforcement

§26.105 Appeals Boards

§26.106 Permits

§26.107 Fees

§26.108 Inspections

LACFCD Code Chapter 21 - STORMWATER AND RUNOFF  
POLLUTION CONTROL including:

§21.01 Purpose and Intent

§21.03 Definitions

§21.05 Standards, Guidelines, and Criteria

§21.07 Prohibited Discharges

§21.09 Installation or Use of Illicit Connections Prohibited

§21.11 Littering Prohibited

§21.13 Evidence of Compliance With Permit Requirements for Industrial  
or Commercial Activity

§21.15 Notification of Uncontrolled Discharges Required

§21.17 Requirement to Monitor and Analyze

§21.19 Conflicts With Other Code Sections

§21.21 Severability

§21.23 Violation a Public Nuisance

California Government Code §6502

California Government Code §23004

California Water Code §8100 *et. seq.*

Relationship Of Applicable Ordinances Or Other Legal Authorities To  
 The Requirements of 40 CFR §122.26(d)(2)(i)(A-F) And The Order

Although, depending upon the particular issue, there may be multiple ways in which particular sections of the County of Los Angeles' ordinances, LACFCD's ordinances, and statutes relate to the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order, the table below indicates the basic relationship with Part VI(A)(2)(a) of the Order:

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.</p>	<p>Los Angeles County Code:                      §12.80.410 [illicit discharge prohibited];                      §12.80.450 [construction]                      §12.80.460 [industrial and commercial]                      §12.80.470 and .480 [industrial and commercial NPDES requirements]                      §12.84.440 [LID standards]                      §12.84.445 [hydromodification control]                      §12.84.450 [LID Plan Review]                      §22.60.330 [general prohibitions]                      §22.60.340 [violations]                      §22.60.350 [public nuisance]                      §22.60.360 [infractions]                      §22.60.370 [injunction]                      §22.60.380 [enforcement.]                      §22.60.390 [zoning enforcement order]                      §26.103 [violations and penalties]</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§26.104 [enforcement] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited] LACFCD Code: §21.07 Prohibited Discharges
iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.420 [illicit connections prohibited] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.23 Violation a Public Nuisance

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.</p>	<p>Los Angeles County Code:                      §12.80.410 [illicit discharge prohibited];                      §12.80.440 [littering and other polluting prohibited]</p> <p>LACFCD Code:                      §19.07 Interference With or Placing Obstructions, Refuse, Contaminating Substances, or Invasive Species in Facilities Prohibited                      §21.05 Standards, Guidelines, and Criteria                      §21.07 Prohibited Discharges                      §21.09 Installation or Use of Illicit Connections Prohibited                      §21.11 Littering Prohibited                      §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity                      §21.15 Notification of Uncontrolled Discharges Required                      §21.17 Requirement to Monitor and Analyze                      §21.23 Violation a Public Nuisance</p>
<p>v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).</p>	<p>Los Angeles County Code:                      §12.80.490 [notification of uncontrolled discharge]                      §12.80.570 [obstructing access to facilities]                      §12.80.580 [compliance inspection]                      §12.80.610 [violation a nuisance]                      §12.620 [nuisance abatement]                      §12.80.635 [violation penalty]</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§12.80.640 [penalties not exclusive] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections] LACFCD Code: §19.11 Violation a Public Nuisance §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.19 Conflicts With Other Code Sections §21.23 Violation a Public Nuisance
vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.	Same as item v., above
vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees.	California Government Code §6502 California Government Code §23004
viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.	California Government Code §6502 California Government Code §23004
ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.	Los Angeles County Code: §12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.80.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §22.60.380 [enforcement.] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.	Los Angeles County Code: §12.80.450 [construction mitigation] §12.80.500 [good housekeeping practices] §12.80.510 [construction BMPs] §12.80.520 [industrial/commercial BMPs] §12.84.440 [LID standards] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria

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	§21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
xi. Require that structural BMPs are properly operated and maintained.	Los Angeles County Code: §12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.23 Violation a Public Nuisance
<p>xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.</p>	<p>Los Angeles County Code:            §12.80.530 [installation of structural BMPs]            §22.60.380 [enforcement.]            §22.60.390 [zoning enforcement order]            §26.106 [permits]            §26.108 [inspections]</p> <p>LACFCD Code:            §21.05 Standards, Guidelines, and Criteria            §21.07 Prohibited Discharges            §21.09 Installation or Use of Illicit Connections Prohibited            §21.11 Littering Prohibited            §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity            §21.15 Notification of Uncontrolled Discharges Required            §21.17 Requirement to Monitor and Analyze            §21.23 Violation a Public Nuisance</p>

Order Part VI(A)(2)(b)(ii)

*"Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system."*

The local administrative and legal procedures available to mandate compliance with the above ordinances are specified in those ordinances, particularly in:

Los Angeles County Code:

§12.80.550 Enforcement—Director's powers and duties.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Title 26, §103 Violations And Penalties

Title 26, §104 Organization And Enforcement

Title 26, §105 Appeals Boards

Title 26, §106 Permits

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

LACFCD Code:

§21.05 Standards, Guidelines, and Criteria

§21.07 Prohibited Discharges

§21.09 Installation or Use of Illicit Connections Prohibited

§21.11 Littering Prohibited

§21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity

§21.15 Notification of Uncontrolled Discharges Required

§21.17 Requirement to Monitor and Analyze

§21.23 Violation a Public Nuisance

LACFCD attempts to first resolve each enforcement action administratively. However, the above cited ordinances also provide LACFCD with the authority to pursue such actions in the judicial system as necessary.

Very truly yours,

JOHN F. KRATTLI  
County Counsel

By   
JUDITH A. FRIES  
Principal Deputy County Counsel  
Public Works Division

JAF:jjj